

8/27/2012 4:58 PM

**DOCKET NO. D-2008-002 CP-2**

**DELAWARE RIVER BASIN COMMISSION**

**Discharge to a Tributary of Special Protection Waters**

**Pennsylvania American Water Company  
Water Filtration Plant Discharge  
Lower Makefield Township, Bucks County, Pennsylvania**

**PROCEEDINGS**

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by Pennsylvania American Water Company (PAWC or docket holder) on August 31, 2011 (Application), for renewal an existing water filtration plant (WFP) and its related filter backwash discharge. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0027634 for this project was approved by the Pennsylvania Department of Environmental Protection (PADEP) on August 15, 2007, effective September 1, 2007. Renewal of the NPDES Permit is expected shortly after docket issuance.

The Application was reviewed for inclusion of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Bucks County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on September 12, 2012.

**A. DESCRIPTION**

**1. Purpose.** The purpose of this docket is to renew the approval of an existing discharge of up to 0.402 million gallons per day (mgd) of filter backwash from the docket holder's 6.0 mgd Yardley WFP. The existing WFP will also be included in the Comprehensive Plan upon approval of this docket.

**2. Location.** Filter backwash will continue to be discharged to Brock Creek at River Mile 138.0 – 0.54 -1.6 (Delaware River – Buck Creek - Brock Creek) via Outfalls Nos. 001 and 002, in the drainage area to the non-tidal Lower Delaware River, which is designated as the Lower

Delaware Special Protection Waters (SPW) area. The Yardley WFP is located in Lower Makefield Township, Bucks County, Pennsylvania as follows:

| OUTFALL NO. | LATITUDE (N) | LONGITUDE (W) |
|-------------|--------------|---------------|
| 001         | 40° 13' 25"  | 74° 50' 53.0" |
| 002         | 40° 13' 25"  | 74° 50' 52.3" |

**3. Area Served.** The Yardley WFP supplies drinking water to the Borough of Yardley, as well as Falls and Lower Makefield Townships, all located in Bucks County, Pennsylvania. The WFP processes up to 6.0 mgd of water, with a resulting filter backwash discharge of up to 0.402 mgd. Water treated by the WFP is withdrawn from the Delaware River approximately 1.5 miles northeast of the WFP.

For the purpose of defining the Area Served, sections B (Type of Discharge) and D (Service Area) of the docket holder's Application are incorporated herein by reference, to the extent consistent with all other conditions contained in the DECISION Section of this docket.

**4. Physical Features.**

**a. Design Criteria.** Outfalls Nos. 001 and 002 discharge treated filter backwash and supernatant to two holding basins (lagoons) located at the docket holder's WFP. Each basin is designed to release 0.402 mgd. However, only one basin discharges to Brock Creek each day, keeping the total discharge for the plant at 0.402 mgd.

**b. Facilities.** Rinse water from 4 upflow clarifiers and backwash water from 4 anthracite filters are discharged to the wastewater clarifier. A portion of the supernatant (up to 10 percent of the raw water flow) is recycled to the head of the plant, while the remainder is discharged to the lagoons. Settled solids from the wastewater clarifier are transferred to a filter press. Press filtrate is discharged directly to the lagoons.

The docket holder's WFP discharges backwash to waters classified as SPW and is required to have available emergency power. The Yardley WFP has a generator available for emergency power supply.

The docket holder's WFP is not staffed 24 hours per day, and has a remote alarm system that continuously monitors plant operations.

The docket holder's existing WFP has prepared and implemented an emergency management plan suitable to Commission standards.

The project facilities aren't located in the 100-year floodplain.

Wasted sludge will continue to be hauled off-site by a licensed hauler for disposal at a (State-approved) facility.

c. **Water withdrawals.** The water withdrawal for this facility from the Delaware River is described in detail in Docket No. D-1995-53 CP, which was approved on June 26, 1996.

d. **NPDES Permit / DRBC Docket.** NPDES Permit No. PA0027634 was approved by the PADEP on August 15, 2007, effective September 1, 2007 and includes final effluent limitations for the project discharge of 0.402 mgd to surface waters classified by the PADEP as a warm water fishery (WWF). Renewal of the NPDES Permit is expected shortly after docket issuance. The following average monthly effluent limits are among those listed in the NPDES Permit and meet or are more stringent than the effluent requirements of the DRBC.

**EFFLUENT TABLE A-1: DRBC Parameters Included in NPDES Permit**

| OUTFALLS NOS. 001 and 002 (WFP) |                                |                             |
|---------------------------------|--------------------------------|-----------------------------|
| PARAMETER                       | LIMIT                          | MONITORING                  |
| pH (Standard Units)             | 6 to 9 at all times            | As required by NPDES Permit |
| Total Suspended Solids          | 20 mg/l (85% minimum removal*) | As required by NPDES Permit |

\* DRBC Requirement

**EFFLUENT TABLE A-2: DRBC Parameters Not Included in NPDES Permit**

| OUTFALLS NOS. 001 and 002 (WFP) |                         |             |
|---------------------------------|-------------------------|-------------|
| PARAMETER                       | LIMIT                   | MONITORING  |
| Total Dissolved Solids *        | 1,000 mg/l **           | Quarterly * |
| Ammonia-Nitrogen *              | Monitor & Report Only * | Quarterly * |
| Total Phosphorus *              | Monitor & Report Only * | Quarterly * |
| Nitrate-Nitrogen *              | Monitor & Report Only * | Quarterly * |

\* DRBC Requirement

\*\* See DECISION Condition II.p.

e. **Cost.** There are no construction associated with this renewal project.

f. **Relationship to the Comprehensive Plan.** The discharge from the existing Yardley WFP was approved by the DRBC via Docket No. D-2008-2-1 on September 24, 2008, but did not include the project in the Comprehensive Plan. Approval of this docket will include the project in the Comprehensive Plan (See DECISION Condition I.b.).

## **B. FINDINGS**

The purpose of this docket is to renew approval of the existing 0.402 mgd filter backwash discharge from the 6.0 mgd Yardley WFP.

On July 16, 2008, the DRBC approved amendments to its *Water Quality Regulations* (WQR) that provide increased protection for waters that the Commission classifies as Special Protection Waters. The portion of the Delaware River and its tributaries within the boundary of the Lower Delaware River Management Plan Area was approved for Special Protection Waters designation. (Lower SPW)

Article 3.10.3A.2.e.1). and 2). of the Commission's *WQR*, states that projects subject to review under Section 3.8 of the Compact that are located in the drainage area of SPW must submit for approval a Non-Point Source Pollution Control Plan (NPSPCP) that controls the new or increased non-point source loads generated within the portion of the docket holder's service area which is also located within the drainage area of SPW. The service area of the docket holder is located within in the drainage area of SPW. Since this project does not entail additional construction and expansion of facilities/service area (i.e., there aren't any new or increased non-point source loads associated with this approval), the NPSPCP requirement is not applicable at this time. Accordingly, DECISION Condition II.1. has been included in this docket.

At the project site, Brock Creek has an estimated seven-day low flow with a recurrence interval of ten years ( $Q_{7-10}$ ) of 0.013 mgd (0.02 cfs). The ratio of this low flow to the peak design filter backwash discharge from the Yardley WFP is approximately 0.03 to 1.

The nearest surface water intake of record for public water supply downstream of the project discharge is operated by the docket holder (Docket No. D-95-53 CP-1), at a distance of approximately 2.5 river miles. The next closest public water supply intake is operated by the City of Trenton.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

The limits in the NPDES Permit are in compliance with Commission effluent quality requirements, where applicable.

The project is designed to produce a discharge meeting the effluent requirements as set forth in the *WQR* of the DRBC.

### **C. DECISION**

I. Effective on the approval date for Docket No. D-2008-002 CP-2 below:

a. Docket No. D-2008-2-1 is terminated and replaced by Docket No. D-2008-002 CP-2; and

b. The project and the appurtenant facilities described in Section A "Physical Features" of this docket shall be added to the Comprehensive Plan.

II. The project and appurtenant facilities as described in Section A "Physical Features" of this docket are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the PADEP in its NPDES permit, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission's.

b. The facility and operational records shall be available at all times for inspection by the DRBC.

c. The facility shall be operated at all times to comply with the requirements of the Commission's *WQR*.

d. The docket holder shall comply with the requirements contained in the Effluent Tables in Section A.4.d. of this docket. The docket holder shall submit the required monitoring results directly to the DRBC Project Review Section. The monitoring results shall be submitted annually, absent any observed limit violations, by January 31. If a DRBC effluent limit is violated, the docket holder shall submit the result(s) to the DRBC within 30 days of the violation(s) and provide a written explanation that states the action(s) the docket holder has taken to correct the violation(s) and protect against any future violations.

e. Except as otherwise authorized by this docket, if the docket holder seeks relief from any limitation based upon a DRBC water quality standard or minimum treatment requirement, the docket holder shall apply for approval from the Executive Director or for a docket revision in accordance with Section 3.8 of the *Compact* and the *Rules of Practice and Procedure*.

f. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

g. The discharge of wastewater shall not increase the ambient temperatures of the receiving waters by more than 5°F, nor shall such discharge result in stream temperatures exceeding 87°F. (Non-tidal, Non-trout Waters)

h. The docket holder is permitted to treat and discharge wastewaters as set forth in the Area Served section of this docket, which incorporates by reference sections B (Type of Discharge) and D (Service Area) of the docket holder's Application to the extent consistent with all other conditions of this DECISION section.

i. The docket holder shall make wastewater discharge in such a manner as to avoid injury or damage to fish or wildlife and shall avoid any injury to public or private property.

j. Nothing in this docket approval shall be construed as limiting the authority of DRBC to adopt and apply charges or other fees to this discharge or project.

k. The issuance of this docket approval shall not create any private or proprietary rights in the waters of the Basin, and the Commission reserves the right to amend, suspend or rescind the docket for cause, in order to ensure proper control, use and management of the water resources of the Basin.

l. Prior to constructing any substantial alterations or additions at the WFP, the docket holder shall submit and have approved by the Executive Director of the DRBC, a NPSPCP in accordance with Article 3.10.3A.2.e.1). and 2). of the Commission's *WQR*.

m. Unless an extension is requested and approved by the Commission in advance, in accordance with paragraph 11 of the Commission's Project Review Fee schedule (Resolution No. 2009-2), the docket holder is responsible for timely submittal of a docket renewal application on the appropriate DRBC application form at least 12 months in advance of the docket expiration date set forth below. The docket holder will be subject to late charges in the event of untimely submittal of its renewal application, whether or not DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below (or the later date established by an extension that has been timely requested and approved), the terms and conditions of the current docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

n. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

o. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the Rules of Practice and Procedure. In accordance with Section 15.1(p) of the Delaware River Basin Compact, cases and controversies arising under the Compact are reviewable in the United States district courts.

p. The docket holder may request of the Executive Director in writing the substitution of specific conductance for TDS. The request should include information that supports the effluent specific correlation between TDS and specific conductance. Upon review, the Executive Director may modify the docket to allow the substitution of specific conductance for TDS monitoring.

**BY THE COMMISSION**

**DATE APPROVED:**

**EXPIRATION DATE: September 12, 2017**